

APPENDIX I:

CLAIM AMENDMENTS:

Cancel Claims 2 and 7 to 9, and amend Claims 1, 12, 13, 16, 17, 20 and 21, as indicated in the following listing of the claims:

1. (currently amended) A process for the preparation of expandable styrene polymers having a molecular weight M_w of from 190,000 to 400,000 g/mol 220,000 to 300,000 g/mol, which comprises conveying a blowing agent-containing styrene polymer melt having a temperature in the range from 140 to 300°C 160 to 240°C through a die plate with holes whose diameter at the die exit is at most 1.5 in a range from 0.2 to 1.2 mm and wherein the die plate is heated at least to a temperature in the range of from 20 to 100°C above the temperature of the blowing agent-containing polymer melt, and subsequently granulating the extrudate.
2. (canceled)
3. (previously presented) A process as claimed in claim 1, wherein the expandable styrene polymer has a molecular weight distribution having a polydispersity M_w/M_n of at most 3.5.
4. (previously presented) A process as claimed in claim 1, wherein the styrene polymer employed is transparent polystyrene (GPPS), high-impact polystyrene (HIPS), an acrylonitrile-butadiene-styrene polymer (ABS), styrene-acrylonitrile (SAN) or a mixture thereof or with polyphenylene ether (PPE).
5. (previously presented) A process as claimed in claim 1, wherein the blowing agent-containing styrene polymer melt comprises, in homogeneous distribution, from 2 to 10% by weight of one or more blowing agents selected from the group consisting of aliphatic hydrocarbons having from 2 to 7 carbon atoms, alcohols, ketones, ethers or halogenated hydrocarbons.
6. (previously presented) A process as claimed in claim 1, wherein the blowing agent-containing styrene polymer melt comprises plasticizers selected from the group consisting of: mineral oils, oligomeric styrene polymers and phthalates, in proportions in the range from 0.05 to 10% by weight, based on the styrene polymer.
- 7.-9. (canceled)

10. (previously presented) A process as claimed in claim 1, wherein the die plate has holes having an L/D ratio (length (L) of the die zone, whose diameter corresponds at most to the diameter at the die exit, to the diameter (D) at the die exit) of at least 2.
11. (previously presented) A process as claimed in claim 1, wherein the diameter (E) of the holes at the die entrance of the die plate is at least twice as great as the diameter (D) at the die exit.
12. (currently amended) A process as claimed in claim 1, wherein the die plate has holes having a conical inlet with an inlet angle α of less than 180°.
13. (currently amended) A process as claimed in claim 1, wherein the die plate has holes having a conical outlet with an outlet angle β of less than 90°.
14. (previously presented) A process as claimed in claim 1, wherein the die plate has holes having different exit diameters (D).
15. (previously presented) A process as claimed in claim 1, wherein the blowing agent-containing styrene polymer melt comprises 0.05 to 1.5% by weight of water, based on the styrene polymer.
16. (currently amended) The process as claimed in claim 1, comprising the following steps:
 - a) polymerization of styrene monomer or styrene monomer and co-polymerizable monomers,
 - b) degassing of the resultant styrene polymer melt,
 - c) mixing of the blowing agent and, if desired, additives into the styrene polymer melt by means of static or dynamic mixers at a temperature of at least 150°C,
 - d) cooling of the blowing agent-containing styrene polymer melt to a temperature in the range of at least 120°C from 160 to 240°C,
 - e) discharge through a die plate having holes whose diameter at the die exit is at most 1.5 in the range from 0.2 to 1.2 mm, and
 - f) granulation of the blowing agent-containing melt.
17. (currently amended) A process as claimed in claim 16 15, wherein step f) is carried out directly behind the die plate under water at a pressure in the range from 1 to 10 bar.

18.-19. (canceled)

20. (currently amended) An expandable styrene polymer (EPS) obtained by the process as claimed in claim ~~16~~ 15, wherein at least 90% of the internal water is present in the form of internal water droplets having a diameter in the range from 0.5 to 15 μm .

21. (currently amended) An expandable styrene polymer (EPS) as claimed in claim ~~16~~ 15, whose expansion capability α is at most 125.

22. (previously presented) An expandable styrene polymer (EPS) as claimed in claim 20, which takes the form of granules having a diameter of from 0.4 to 1.8 mm.

23. (original) An expandable granulated styrene polymer (EPS) as claimed in claim 22, which has a bulk density of at most 700 g/l.

24. (previously presented) An expandable styrene polymer (EPS) as claimed in claim 20, which comprises from 0.01 to 30% by weight of pigments.